REMARKS

Claims 1-16 and 19-55 are pending in the application. Claims 1-16 and 19-55 are rejected. Applicants respectfully submit that claims 1-16 and 19-55, as presented herein, are patentably distinct from the cited prior art and the prior art made of record, and in view of the remarks herein the rejections have been overcome. Thus, Applicants respectfully request withdrawal of the rejections.

Claim Rejections Under 35 USC §103

Claims 1-16 and 19-55 are rejected under 35 USC §103(a) as being unpatentable over Chou et al., United States Patent number 6,330,499 ("Chou"), and Spaur et al., United States Patent number 5,732,074 ("Spaur"). The Examiner asserts that Chou discloses a method for remotely manipulating vehicle elements wherein a gateway node comprises at least one real-time interface processor (RTIP) and at least one application processor, the RTIP performing real-time operations and the application processor performing high level processing functions, and providing at least one of data processing, data storage, access control, protocol translation, security including service discovery and device authentication, and network control using the gateway node. The Examiner also states that Chou does not disclose remotely manipulating at least one function of the vehicle elements.

The Examiner further asserts that Spaur discloses a controller including a processor for performing processing operations including running of executable program code. The Examiner states that the processor is a single microprocessor that performs multiple tasks in conjunction with a real time operating system (RTOS), and the RTOS manages a number of services associated with conducting one or more applications-oriented tasks. The Examiner states that the RTOS works with applications software in a multi-task scheme to respond to requests for vehicle-related information including data. The Examiner opines that, given the teaching of Spaur, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the

controller of Spaur into the system of Chou in order to increase the processing capability in the vehicle environment.

Applicants respectfully submit that neither Chou, Spaur, nor Chou in combination with Spaur describe remote manipulation of vehicle elements, including coupling among a plurality of network elements including at least one vehicle internetwork, at least one gateway node of at least one local site, and the Internet, wherein the gateway node comprises at least one real-time interface processor (RTIP) and at least one application processor, the RTIP performing real-time operations and the application processor performing high-level processing functions (emphasis added). Further, Applicants submit that Chou and/or Spaur fail to disclose remotely manipulating at least one function of the vehicle elements and controlling remote access to the vehicle internetwork using the gateway node in response to intermittent external communications.

Referring to claim 1, Applicants respectfully submit that Chou does not teach or disclose a system having a gateway node comprising at least one real-time interface processor (RTIP) and at least one application processor, the RTIP performing real-time operations and the application processor performing high-level processing functions. In contrast, Chou describes a system including an in-vehicle computing system that includes a client computer device, a communication link, and a remote service center having a diagnostic server and a help desk (Chou, column 2, lines 30-52). The in-vehicle hardware includes a processor coupled to a memory, a user interface, a network interface, a vehicle interface, at least one persistent storage device, and optional external devices. The processor may be of a conventional type or it may be an embedded system (Chou, column 2, lines 59-67).

The remote service center comprises a diagnostic server that uses a diagnosis engine to provide a health checkup or a diagnosis using data obtained from the vehicle, the vehicle's past history, and the diagnostics information about the particular model of the vehicle. The service center may be coupled to the help desk or call center system. The call center system includes a service representative user interface, a job queue management unit, and a service data management unit (Chou, column 5, lines 34-67). The fault monitoring and diagnostics example of Chou describes the diagnostic server as placing a request for vehicle diagnostics on a job queue of the help desk or call center and

initiating a diagnosis engine analysis as a result of driver action taken via the in-vehicle hardware (Chou, column 8, lines 34-42).

While Chou describes a remote service center having a diagnostic server, Chou fails to teach, describe, or suggest a system having more than a single processor. More particularly, Chou fails to describe a gateway node comprising at least one real-time interface processor (RTIP) and at least one application processor, the RTIP performing real-time operations and the application processor performing high-level processing functions. Additionally, Applicants agree with the Examiner that Chou does not disclose remotely manipulating at least one function of the vehicle elements.

With continuing reference to claim 1, Spaur does not disclose or suggest the invention as claimed. For example, Spaur teaches away from the invention as claimed because Spaur only discloses a controller with a single microprocessor and a real-time operating system (RTOS) that function to perform multiple tasks. Further, Spaur fails to disclose any alternative embodiments that include more than a single processor or describe any operations using more than a single processor. This teaching of Spaur is in contrast to the invention as claimed that comprises a gateway node including at least one real-time interface processor ("RTIP") and at least one application processor, the RTIP performing real-time operations and the application processor performing high level processing functions.

Applicants respectfully submit that Spaur discloses a communication system for use in bi-directional communication between remote stations and a vehicle via the Internet, an airlink, and the vehicle's controller area network (CAN). The system of Spaur transfers communication information to/from the vehicle using a wireless device in the vehicle. The wireless device, which includes a cellular communication device like a cellular telephone, bi-directionally communicates with the vehicle CAN by transmitting and receiving information via the airlink and a controller. The controller, which is in the vehicle, is responsible for a number of functions related to understanding and acting on information received from the remote stations, obtaining and responding to requested information, and operatively functioning with information including data available from other elements in the vehicle. Spaur, column 5, line 41 to column 7, line 22.

Spaur discloses a controller comprised of a number of elements including a single processor and an RTOS, a transmission control protocol (TCP)/Internet protocol (IP) (TCP/IP), a web server, a common gateway interface-binary (CGI-bin), and program memory. The single processor controls all processing operations of the controller. The RTOS performs task and memory management while responding to requests for information. The TCP/IP stack provides the necessary control in checking for communicating information like requests and data over the Internet. The web server communicates with the TCP/IP stack for servicing information related requests in hyper-text transmission protocol (HTTP) format. The CGI-bin communicates with the web server and acts as a link to executable software stored in the controller program memory. Spaur, Figure 2 (element 30), and Abstract.

More specifically, the controller of Spaur includes a single processor for performing processing operations including running of executable program code. Preferably, the processor is a single microprocessor that performs multiple tasks, in conjunction with a real-time operating system (RTOS) (emphasis added). That is, the RTOS manages a number of services associated with conducting one or more applications-oriented tasks. Preferably, the RTOS includes a kernel that is involved in performing real-time multi-tasking including: task management, intertask communication, memory management, message management, timing, I/O management, and error management. In the context of applications associated with the vehicle, the RTOS works with applications software in a multi-task scheme to respond to requests for vehicle-related information including data. Spaur, column 8, lines 1-23.

The controller of Spaur also includes a TCP/IP stack that connects between the processor and the web server. The web server services information related requests in HTTP format, and the TCP/IP stack provides necessary communication protocols in association with the Internet. The web server communicates with the CGI-bin, which acts as a link to a number of executable programs stored in the program memory. The stored executable software may encompass a variety of applications associated with the vehicle. The stored executable software runs on the processor and is useful in processing, analyzing or otherwise acting on data available in the vehicle, including acting on the

data in real time, such as acting on available data in real time that is used for transmission to a remote station.

With reference to the above-cited sections of Spaur, Applicants respectfully submit that Spaur does not disclose or suggest the invention as claimed in claim 1. For example, Spaur teaches away from the invention as claimed because Spaur only discloses a controller with a single microprocessor that functions to perform multiple tasks. Applicants submit that a controller using a single processor to perform multi-tasking is not equivalent to a system in which a first processor (RTIP) performs real-time operations and a second processor (application processor) performs high level processing functions (emphasis added). Therefore, the gateway node comprising at least one real-time interface processor (RTIP) and at least one application processor, the RTIP performing real-time operations and the application processor performing high level processing functions is patentable and non-obvious over the single processor taught in Spaur.

Furthermore, the operating system (RTOS) of a processor-based system is not the equivalent of a second processor. An operating system is generally described as application-independent software running on a processor that supports the running of application software and manages the resources of the application platform (The Authoritative Dictionary of IEEE Standards Terms, Seventh Edition, the Institute of Electrical and Electronics Engineers, 2000). Therefore, while Spaur discloses "the processor is a single microprocessor that performs multiple tasks, in conjunction with a real-time operating system (RTOS)," the single processor/RTOS combination is not equivalent to a system in which a first processor (RTIP) performs real-time operations and a second processor (application processor) performs high level processing functions (emphasis added). Therefore, the gateway node comprising at least one real-time interface processor (RTIP) and at least one application processor, the RTIP performing real-time operations and the application processor performing high-level processing functions is patentable and non-obvious over the single processor/RTOS combination taught in Spaur.

As Chou and Spaur each fail to disclose a gateway node comprising at least one real-time interface processor (RTIP) and at least one application processor, the RTIP

performing real-time operations and the application processor performing high-level processing functions, and Spaur actually teaches away from a gateway node comprising multiple processors, Applicants respectfully submit that the invention claimed in claim 1 would not have been obvious to one of ordinary skill in view of Chou and Spaur, alone and/or in any combination. Furthermore, as Chou and/or Spaur also fail to disclose remotely manipulating at least one function of the vehicle elements and controlling remote access to the vehicle internetwork using the gateway node in response to intermittent external communications, Applicants respectfully submit that the invention claimed in claim 1 would not have been obvious to one of ordinary skill in view of Chou and Spaur, alone and/or in any combination.

Additionally, as claims 2-16 and 19-41 depend from claim 1, claims 2-16 and 19-41 are patentable over Chou and Spaur. Furthermore, as claims 42 and 49 include limitations similar to those of claim 1, and claims 43-48 and claims 50-55 depend from claim 42 and claim 49, respectively, claims 42-55 are also patentable over Chou in view of Spaur. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 USC §103(a).

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that claims 1-16 and 19-55 as presented herein are in condition for allowance. Thus, allowance of the claims is requested. If in the opinion of Examiner Mirza a telephone conference would expedite the prosecution of the subject application, or if there are any issues that remain to be resolved prior to allowance of the claims, Examiner Mirza is encouraged to call Rick Gregory at (408) 236-6646.

Extension of Time

A Petition for Extension of Time Under 37 CFR 1.136(a) is enclosed herewith in duplicate for a two month extension of time.

Authorization to Charge Deposit Account

Please charge deposit account 501914 for any fees due in connection with this Office Action response.

Respectfully submitted,
Shemwell Gregory & Courtney LLP

Date: March 21, 2005

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